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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Vladan Mijailovic

Docket No.: AD#-155

Serial No.: 10/626,110

Examiner: Amy Jo Sterling

Filed: 7/23/2003

Group Art Unit: 3632

For: "Steadying Camera Support Platform"

Date: May 23, 2005

Appellant's Brief

(1) Real Party in Interest

Applicant-inventor is the real party in interest, there being no assignment nor obligation to assign the subject matter described and claimed herein.

(2) Related Appeals and Interferences

None.

(3) Status of Claims

Claims 1-8 stand Finally Rejected. The Examiner has allegedly withdrawn Claims 9-21 from consideration as being drawn to a non-elected invention subject to a species election requirement. Applicant pointed out that the invention described with reference to Figs. 8-9 was a sub-combination, not a species and, that as a minimum, Claims 9-14, and arguably by association, Claims 15-19 should be examined along with Claims 1-8. Applicant's assertion that the species requirement was erroneous remains uncontested on the record of this file history. No claim has been allowed.

(4) Status of Amendments

An amendment after final to claim 1 presented November 17, 2004, has been refused entry.

(5) Summary of Invention

Applicant's inventive device is directed to a system for holding a hand-held video camera steady during its movement while recording (page 1, lines 11-25). The system comprises a support platform 22 to which the video camera is secured. A support shaft 24 is connected to a bottom surface of the platform and a sphere 40 affixed to an upper portion 26 of the support shaft. A socket plate member 42 pivotally captures the sphere in a socket (46, 46', Fig. 5) formed therein the socket plate freely pivoting about the sphere. A balance plate 58 is connected to a bottom portion 28 of the

support shaft to help counterbalance a weight of the camera. Means (50, 70) attachable to the socket plate member 42 by which the support platform and the video camera are suspended, whereby when the platform support with the camera supported thereon is transported during video recording using the means attachable to said socket plate member, the camera is maintained in a steady position by a gravitational force (see page 5, lines 2-19 for partial description of relevant structure and page 5 line 20-page 6, line 2 for a concise synopsis of the device's operation). The support shaft 24 has a first portion 26 which can be rotated relative to second portion 28 (Fig. 2) to tilt the video camera, if desired. A description of secondary means 70 for supporting the platform is found at page 6, line 15-page 7, line 16.

(6) Issues

- 1) Can tripod platforms designed to support still cameras be fairly said to teach or suggest structure useful for maintaining video cameras steady?
- 2) Does a device designed to lock a platform in position render obvious a platform which is designed and claimed as pivoting freely about a spherical ball?
- 3) Can an Examiner who stonewalls an Applicant's argument regarding the appropriateness of an election requirement be affirmed at the Board of Appeals?
- 4) Can a prematurely made final rejection be affirmed on appeal?

(7) Grouping of Claims

Claims 1-8 form a first group while Claims 9-19 form a second group which includes the hands-free unit.

(8) Argument

In the Final Rejection, the Examiner rejected Claims 1-4, 6-8 under 35 USC §102(b) 35 USC 103(a) as being unpatentable over Reese et al. (6,119,995) in view of Wu et al. (6,729,778). The statement of the rejection is confusing at best. For want of a more definitive statement of the Examiner's grounds for rejecting these claims, Applicant's undersigned representative has treated this rejection as being under 35 USC §103(a) and not under §102(b).

It is the Examiner's position that

The patent to Reese et al. discloses a camera steady device 10 having a support

platform (20) and a support shaft (16a, 18) connected to the bottom surface of the platform, having a first upper portion (16), and a separate second lower portion (18), the first and second shafts being positionable within 60 degrees relative to each other and a locking mechanism (24) to lock them in place, a sphere (30) affixed to the upper portion of the support shaft (16a, 18) a socket with a handle (32a, 32b, 16) which has a straight portion and an [sic] fifteen degree angled portion (59), the socket which is permitted to freely pivot about the sphere, a range of plus or minus 60 degrees about a roll and pitch axis and plus or minus 360 degrees about a yaw axis by being, [?sic] the socket which has a first upper plate (32b) with a first downwardly directed truncated spherical recess, and a second lower plate (32a) with a second upwardly directed truncated spherical recess, which pivotally captures the sphere (30).

Reese does teach a counterbalanced socket plate member connected to the bottom portion of the support shaft and a means attachable to socket plate to by [sic] which the support platform is suspended or a and [sic] means (48) for attaching a video camera.

Wu et al. shows a camera steady device for a video camera (60) and a means for attaching (341) the camera, which has a sphere attached to support shaft (20) which has a counterbalancing socket plate member (12) connected to a bottom portion of the support shaft (20) and a means (13) attachable to socket plate to by [sic] which the support platform is suspended, used to firmly hold the video camera to the device and to suspend the device from a support surface. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made from the teachings of Wu et al. to have added these things to the device of Reese et al. in order to firmly attach the camera to the device and to suspend the device from a support surface.

Appeal is taken from this rejection of Claims 1-4, 6-8.

Reese et al. and Wu et al. are each directed to platforms for still cameras (not video cameras) which lock in a particular position for photography. The Examiner appears to be doubly including the support platform 20 when she recites a counter-balanced socket plate member. Claim 1 clearly requires two separate elements, a support platform 22 (Applicant's reference system) connected to a top portion of the support shaft 24 and a counterbalancing plate 58 connected to the bottom end thereof. The Examiner's attempt to have a single item read on these two elements positioned at opposite ends of the support shaft is one of many deficiencies in the logic used to reject these claims.

Neither reference teaches or suggests a platform for a video camera which is mounted on a spherical ball to freely pivot thereabout and, through the use of a counterbalance, the camera is maintained in a steady position by a gravitational force, as Claim 1 requires. The Examiner appears to select items from a menu which she would like to appropriate from Wu et al. and insert into the device of Reese et al. However, there does not appear to be a teaching of a reason to do this found

outside of Applicant's specification. The use of Applicant's own teaching to provide the mortar to hold the building blocks of a rejection together requires an impermissible level of hindsight reconstruction. *In re McLaughlin* 170 USPQ 209. None of the cited references teaches or suggests a platform for use with a video camera which pivots freely about a spherical ball under weight of gravity as influenced by a counterweight balance plate. The Examiner has failed to establish a *prima facie* case of obviousness and, accordingly, this rejection should be REVERSED.

Claim 5 has been Finally Rejected under 35 USC §103(a) as unpatentable over Reese et al. in view of Wu et al. as further modified by Donahue (4,953,852). It is the Examiner's position that

Reese et al. and Wu et al. disclose applicant's basic inventive concept, all the elements which are shown above with the exception that it does not show that the sphere is made of Teflon. Donahue shows [sic] a joint having a sphere (62) that is made of Teflon, used for its low friction properties (See Col. 6, lines 20-24 for material selection). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made from the teachings of Donahue to have made the sphere of Teflon in order to have a low friction point.

Appeal is taken from this rejection.

Donahue fails to remedy the deficiencies noted SUPRA regarding the primary combination. The stated purpose of Reese et al. is to create a locking device which will not slip when subjected to loads capable of producing 200 ft-lbs of torque. It is not clear, given the stated purpose of the Reese et al. patent, why anyone, let alone one of ordinary skill in the art, would insert a TEFLON ball, notorious for its self-lubricating slipperiness, as the Examiner has alleged is obvious. It is respectfully submitted that doing so destroys the function of the Reese et al. device for its stated intended purpose. Further, the only reason why one would logically do so is to meet the teaching of Applicant's device, which, even having made the substitution, the combination fails to do. As pointed out with regard to the basic combination, the use of Applicant's teaching as the mortar to hold the building blocks of a rejection together, requires the Examiner to use an impermissible level of hindsight reconstruction. *McLaughlin*, supra. The rejection of Claim 5 is ill-founded and this ground of rejection should be REVERSED.

The Examiner never responded to Applicant's assertion that the hands-free unit of Figs. 8-9 were not a species of the support platform but bore a sub-combination relationship to the invention of Figs. 1-6. Nor did she ever make the election of species requirement final. It is therefore,

submitted, that Applicant has a right to have Claims 9-14, as a minimum, examined with their parent Claim 1. Given that the Examiner must search the details of the hands-free unit, in any event, the examination of Claims 15-19 imposes no additional burden on the Office and could be included, as well.

The Examiner alleged that the second rejection was made Final with new grounds because Applicant's amendment necessitated the new grounds. However, Applicant's amendments were minimal and the newly cited references failed to address the added limitations (video camera, socket freely pivoting about the sphere, gravitational force). What actually necessitated the new grounds was the improper basis of rejection set forth in the original Office Action. Unfortunately for both the Applicant and the Examiner, the present basis for rejection is no better than the original.

Respectfully submitted,



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Certificate of Mailing under 37 CFR §1.8

I hereby certify that this Appeal Brief in the application entitled "Steadying Camera Support Platform" is being deposited in triplicate with the United States Postal Service addressed to Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 with adequate first class postage on the date shown.

Signed Richard K. Thomson Date 05/23/05

Appendix

1. (currently amended) A system for holding a hand-held video camera steady during its movement while recording, said system comprising
 - a) a support platform to which the video camera is secured;
 - b) a support shaft connected to a bottom surface of said platform;
 - c) a sphere affixed to an upper portion of said support shaft;
 - d) a socket plate member which pivotally captures said sphere in a socket formed therein, said socket plate freely pivoting about said sphere;
 - e) a balance plate connected to a bottom portion of said support shaft to help counterbalance a weight of the camera;
 - f) means attachable to said socket plate member by which said support platform and the video camera are suspended;

whereby when the platform support with the camera supported thereon is transported during video recording using the means attachable to said socket plate member, the camera is maintained in a steady position by a gravitational force.

2. The system of Claim 1 wherein said socket plate member permits said sphere to freely pivot $\pm 60^\circ$ about a roll axis, $\pm 60^\circ$ about a pitch axis, $\pm 360^\circ$ about a yaw axis.
3. The camera platform support of Claim 1 wherein said support shaft is formed in a first upper portion and a second separate lower portion, and said first upper portion may be locked in any desired position within an angle of $\pm 60^\circ$ relative to said second lower portion by means of a joint with a locking mechanism.
4. The system of Claim 1 wherein said socket plate member comprises a first upper plate with a first downwardly directed truncated spherical recess and a second lower plate with a second upwardly directed truncated spherical recess, said first and second truncated spherical recesses capturing said spherical ball and serving as said spherical ball's bearing surface.

5. The system of Claim 4 wherein said spherical ball is made of polytetrafluoroethylene material.
6. The system of Claim 1 wherein said means attachable to said socket plate comprises a handle.
7. The system of Claim 6 wherein said handle has a first straight portion and a second angled portion.
8. The system of Claim 7 wherein said second angled portion forms an angle of 15° with said first straight portion.
9. The system of Claim 6 wherein said means attachable to said socket plate comprises a hands-free unit.
10. A hands-free support arm for said system of Claim 1, said hands-free support arm comprising
 - a) a first top bar pivotally connected to a first vertically extending member at its first end and to a second vertically extending member at its second end;
 - b) a second bottom bar pivotally connected to said first vertically extending member at its first end and to said second vertically extending member at its second end, said first top bar, said second bottom bar, and said first and second vertically extending members forming a parallelogram linkage;
 - c) means to attach said first vertically extending member to said system;
 - d) adjustable leveling means associated with said second vertically extending member to position said camera platform support at a desired height;
 - e) attachment means to secure said hands-free support arm to a user's body; whereby a full weight of said system and the camera mounted thereon is carried by the user's body leaving her/his hands free.

11. The hands-free support arm of Claim 10 wherein said adjustable leveling means comprises an air cylinder connected between said parallelogram linkage and said second vertical member.
12. The hands-free support arm of Claim 11 wherein said second vertically extending member comprises an auxiliary air reservoir tank with an intake orifice to permit an amount of air in said secondary reservoir tank to be adjusted thereby adjusting the level of said camera platform while cushioning said camera platform against jerking movement.
13. The hands-free support arm of Claim 10 wherein said second vertically extending member comprises a support block to which said first top and said second bottom bars are pivotally mounted, said second bottom bar having an extended length which extends past a pivot for said second bottom bar.
14. The hands-free support arm of Claim 13 wherein said adjustable leveling means comprises a compression spring operative between a first reaction surface on said extended length and an adjustable second reaction surface to cantilever a weight of said hands-free arm and the video camera, a position of said second adjustable reaction surface being alterable to provide a desired height of said camera platform.
15. A hands-free support arm for a camera support platform, said hands-free support arm comprising
 - a) a first top bar pivotally connected to a first vertically extending member at its first end and to a second vertically extending member at its second end;
 - b) a second bottom bar pivotally connected to said first vertically extending member at its first end and to said second vertically extending member at its second end, said first top bar, said second bottom bar, and said first and second vertically extending members forming a parallelogram linkage;

- c) means to attach said first vertically extending member to said camera support platform;
- d) adjustable leveling means associated with said second vertically extending member to position said camera support platform at a desired height;
- e) attachment means to secure said hands-free support arm to a user's body;

whereby a full weight of said camera support platform and the camera mounted thereon is carried by the user's body leaving her/his hands free.

16. The hands-free support arm of Claim 15 wherein said adjustable leveling means comprises an air cylinder connected between said parallelogram linkage and said second vertically extending member.
17. The hands-free support arm of Claim 16 wherein said second vertically extending member comprises a secondary air reservoir tank with an intake orifice to permit an amount of air in said secondary reservoir tank to be adjusted thereby adjusting the level of said camera support platform while cushioning said camera support platform against jerking movement.
18. The hands-free support arm of Claim 15 wherein said second vertically extending member comprises a support block to which said first top and said second bottom bars are pivotally mounted, said second bottom bar having an extended length which extends past a pivot for said second bottom bar.
19. The hands-free support arm of Claim 18 wherein said adjustable leveling means comprises a compression spring operative between a first reaction surface on said extended length and an adjustable second reaction surface to cantilever a weight of said hands-free arm and the video camera, a position of said reaction surface being alterable to provide a desired height of said camera support platform.